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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,653	04/13/2004	Jee-su Park	116511-00127	3094

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BLANK ROME LLP
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,653

Applicant(s)

PARK ET AL.

Examiner

Frank M. Lawrence

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>(3)</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The incorporation of essential material in the specification by reference to an unpublished U.S. application, *foreign application or patent*, or to a publication is improper (page 1 of the instant specification). Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 42. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 2 and 5-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 10/804,078. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of the instant claims are envisioned and encompassed by the co-pending claims, especially when read in light of the specification.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1724

6. Claims 1, 2 and 5-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wallach et al. (2002/0174506).

7. Wallach et al. '506 teach a robot vacuum cleaner comprising a canister body (110) with a cover, one or more motors for driving wheels disposed at the bottom of the body, an air duct having a suction port at the front of the device for introducing air and an exhaust port for discharging cleaned air, a fan (220) in the duct, a primary filter (232) in the duct, a HEPA filter (234) in the exhaust port of the duct, and a control mechanism for automatically driving the cleaner around a predetermined area while operating the fan (see figures 1a, 2, paragraphs 10, 12, 27, 29, 42, 45). The relative locations of the suction and exhaust port depend on the orientation of the canister body.

8. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Park et al. (5,839,156).

9. Park et al. '156 teach a remote controllable automatic vacuum cleaner, comprising a canister body (10) with a cover, two motors for driving two main wheels (11) disposed at the bottom of the body, a pair of driving wheels (34) connected to the motor, timing belts (32) connecting the driving wheels to the main wheels, an air duct having a suction port (14) in the front of the device for introducing air and an exhaust port (18) for discharging cleaned air from the rear of the device, a fan (23) in the duct, a primary filter bag (17) in the duct, a second filter (19) downstream of the filter bag in the duct, and a control mechanism for automatically driving the cleaner around a predetermined area while operating the fan (see figures 2, 4-6, col. 2, line 61 to col. 5, line 11). If a cap (13) were removed, the suction port would be in the front cover, and the relative locations of the suction and exhaust port depend on the orientation of the canister

Art Unit: 1724

body. One skilled in the art would understand that the second filter will capture relatively smaller sized particles than the filter bag because it is used to protect the fan motor from particles escaping the bag.

10. Claims 1, 2, 5 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by the UK Patent Application (GB 2344745).

11. GB '745 teaches a robotic vacuum cleaner comprising a canister body (10) with a cover, two motors (15) for driving wheels (14) disposed at the bottom of the body, an air duct having a suction port in the bottom of the device for introducing air and an exhaust port for discharging cleaned air, a fan (50) in the duct, primary and secondary cyclone air cleaners (54, 56) in the duct, a post motor filter in the exhaust port of the duct, and a control mechanism for automatically driving the cleaner around a predetermined area while operating the fan (see figures, page 3, lines 17-29, page 6, lines 14-17, page 8, lines 7-11, page 9, line 1 to page 10 line 4)).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of GB '745 or Wallach et al. '506 in view of Song et al. (2002/0153184).

14. Either one of GB '745 or Wallach et al. '506 discloses all of the limitations of the claims except that the driving part includes a pair of motors, a pair of driving wheels rotated by the

Art Unit: 1724

motors, a pair of driven wheels proceeding the driving wheels, and a timing belt connecting the driving wheels and the driven wheels. Song et al. '184 disclose a driving mechanism for a robot cleaner, including a pair of motors, a pair of driving wheels rotated by the motors, a pair of driven wheels proceeding the driving wheels, and a timing belt connecting the driving wheels and the driven wheels (see figure 1, abstract, paragraph 38). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the driving means of either one of GB '745 or Wallach et al. '506 by using driving wheels with timing belts in order to provide greater accuracy of position control.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose robot cleaners.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank M. Lawrence
Primary Examiner
Art Unit 1724

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Frank Lawrence

7-27-05